REMARKS

Applicant respectfully thanks the Examiner for the consideration provided to this application, and respectfully requests reconsideration of this application.

Each of claims 1, 5, 6, 13, 16-18, 20, 33, 34, and 38 has been amended for at least one reason unrelated to patentability, including at least one of: to explicitly present one or more elements, limitations, phrases, terms and/or words implicit in the claim as originally written when viewed in light of the specification, thereby not narrowing the scope of the claim; to detect infringement more easily; to enlarge the scope of infringement; to cover different kinds of infringement (direct, indirect, contributory, induced, and/or importation, etc.); to expedite the issuance of a claim of particular current licensing interest; to target the claim to a party currently interested in licensing certain embodiments; to enlarge the royalty base of the claim; to cover a particular product or person in the marketplace; and/or to target the claim to a particular industry.

Support for the amendments to each of claims 1, 17, 20, 33, and 38 can be found in the application, as originally submitted, at least at page 7, line 21 – page 8, line 11, page 12, lines 7-17, and page 15, and line 18 – page 16, line 6. Support for amendments to claim 5 can be found in the application, as originally submitted, at least at page 7, lines 12-20. Support for amendments to claim 6 can be found in the application, as originally submitted, at least at page 7, line 21 – page 9, line 7. Support for amendments to claim 13 can be found in the application, as originally submitted, at least at page 13, lines 3-11, and page 15, lines 7-12. It is respectfully submitted that no new matter has been added.

Claims 1-38 are now pending in this application. Each of claims 1, 17, 20, 33, and 38 is in independent form.

I. The Claim Objections

Claim 38 was objected to because "claim 38, line 2, the recitation of 'program code embodied in the medium' should be 'program code stored on the medium'. This objection is respectfully traversed as moot in view of the present amendments to claim 38. Claim 38, as amended, states, *inter alia*, "program code stored on the medium". For at least these reasons, reconsideration and withdrawal of the objection to claim 38 is respectfully requested.

II. The Statutory Subject Matter Rejections

Each of claims 17-37 was rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter, and thus was asserted to be unpatentable. Applicant respectfully traverses each of these rejections as moot in view of the present amendments to each of independent claims 17, 20, and 33.

According to MPEP 2106 IV.B.1.a, "a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory."

This view is echoed by the Federal Circuit. An "invention includes 'any new and useful process, machine, manufacture or composition of matter." *Eolas Technologies Inc. v. Microsoft Corp.*, 399 F.3d 1325 (Fed. Cir. 2005) (citing 35 U.S.C. § 101 (2000)). "Without question, software code alone qualifies as an invention eligible for patenting under these categories, at least as processes." *Id.* (citing In re Alappat, 33 F.3d 1526 (Fed. Cir. 1994); AT&T Corp. v. Excel Communications, Inc., 172 F.3d 1352 (Fed. Cir. 1999); MPEP § 2106.IV.B.1.a. (8th ed., rev. 2 2001)). "[S]oftware code claimed in conjunction with a physical structure, such as a disk, fits within at least those two categories of subject matter within the broad statutory label of 'patented invention.' *Id.*

Each of independent claims 17, 20, and 33 complies with this standard. Each of independent claims 17, 20, and 33 claims a "computer-readable medium" encoded with a "computer program". The "computer program" defines "interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized". For at least these reasons, reconsideration and withdrawal of these rejections is respectfully requested.

III. The Obviousness Rejections

Each of claims 1-38 was rejected under 35 U.S.C. 103(a) as being obvious, and thus unpatentable, over various combinations of U.S. Patent 6,282,454 ("Papadopoulos"), U.S. Patent 5,974,470 ("Hammond"), U.S. Patent 5,634,114 ("Shipley"), U.S. Patent 6,121,924 ("Meek"),

and/or U.S. Patent 6,539,422 ("Hunt"). Each of these rejections is respectfully traversed as moot in view of the present amendments to at least each of independent claims 1, 17, 20, 33, and 38.

Each of independent claims 1, 20, 33, and 38, from one of which each of claims 2-16, 21-32, and 24-37 ultimately depends, states, *inter alia*, yet no substantial evidence has been presented that the applied portions of Papadopoulos teach, "the application comprising an Application Wizard, the Application Wizard adapted to provide a first mode and a second mode, the first mode adapted to generate a Real Time Dynamic Link Library project that is usable in a deterministic environment with fixed scan cycles, the second mode adapted to generate a Dynamic Link Library project that is usable in a non-deterministic environment with non-fixed scan cycles".

Independent claim 17, from which each of claims 18 and 19 ultimately depends, states, *inter alia*, yet no substantial evidence has been presented that the applied portions of Papadopoulos teach, "the system comprising an Application Wizard, the Application Wizard adapted to provide a first mode and a second mode, the first mode adapted to generate a Real Time Dynamic Link Library project that is usable in a deterministic environment with fixed scan cycles, the second mode adapted to generate a Dynamic Link Library project that is usable in a non-deterministic environment with non-fixed scan cycles".

In addition, claim 5 states, *inter alia*, yet no substantial evidence has been presented that the applied portions of Papadopoulos teach, "the Real Time Dynamic Link Library project comprising a helper class adapted to access Step 7 type data from a buffer that is passed between a central processing unit and the application".

Claim 6 states, *inter alia*, yet no substantial evidence has been presented that the applied portions of Papadopoulos teach, "wherein the deterministic environment is a WinAC RTX environment".

Claim 13 states, *inter alia*, yet no substantial evidence has been presented that the applied portions of Papadopoulos teach, "the ODK subsystem comprising an ODK RTX Proxy DLL usable in the deterministic environment, the ODK RTX Proxy DLL adapted to communicate through shared memory with an ODK SB Add-on DLL in the non-deterministic environment".

No substantial evidence has been presented that the applied portions of the remaining relied-upon references cure these deficiencies of the applied portions of Papadopoulos.

Thus, even if there were proper evidence of obviousness presented in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), no substantial evidence has been presented the applied portions of the references relied upon in the Office Action, as attempted to be modified and/or combined, expressly or inherently teach every limitation of the independent claims, and consequently the Office Action fails to establish a *prima facie* case of obviousness. Consequently, for at least the reasons mentioned above, reconsideration and withdrawal of these rejections is respectfully requested.

CONCLUSION

It is respectfully submitted that the application is in clear condition for allowance. Reconsideration, withdrawal of all grounds of rejection, and issuance of a Notice of Allowance are earnestly solicited.

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. 1.16 or 1.17 to Deposit Account 50-2504. The Examiner is invited to contact the undersigned at 434-972-9988 to discuss any matter regarding this application.

Respectfully submitted,

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